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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/715,467

11/19/2003

Luliang Jiang

1135.42462X00

3763

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05/03/2006

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EXAMINER

SAEED, USMAAN

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/715,467

Applicant(s)

JIANG, LULIANG

Examiner

Usmaan Saeed

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/19/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-18 are pending in this office action.

#### ***Information Disclosure Statement***

2. Applicant's Information Disclosure Statements, filed 19 September 2005 have been received, entered into record, and considered. See attached form PTO-1449.

#### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Step S4 in figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by **Hovell et al.** (**Hovell** hereinafter) (International Publication Number WO 02/073933).

With respect to claim 1, **Hovell** teaches a **network element for performing name resolving in a network system which includes a first network using a first network protocol and a second network using a second network protocol, the network element comprising:**

**“a first connection means for providing a direct connection to the first network”** as providing communication between a network device in a first network and a network device in a second network, where the first network operates in accordance

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with a first communication protocol and the second network operates in accordance with a second communication protocol (**Hovell** Page 2, Lines 8-11).

**“a second connection means for providing a direct connection to the second network”** as providing communication between a network device in a first network and a network device in a second network, where the first network operates in accordance with a first communication protocol and the second network operates in accordance with a second communication protocol (**Hovell** Page 2, Lines 8-11).

**“an address translation means for performing address translation between the first network and the second network”** as means for translating said assigned alias to an address for the target network device, said translated address being compatible with the communication protocol of the first network (**Hovell** Page 2, Lines 15-17).

**“a name resolving means for performing name resolving”** as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14).

**“wherein the name resolving means and the address translation means are adapted to co-operate in order to translate addresses upon performing name resolving”** as said assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates

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the alias into the address of the target network device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

Claim 10 is essentially the same as claim 1 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 2, **Hovell** teaches **“the network element according to claim 1, wherein the network element is a Domain Name Service server”** as such processes include the DNS application level gateway (**Hovell** Page 5, Line 26).

Claim 11 is essentially the same as claim 2 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 3, **Hovell** teaches **“the network element according to claim 1, wherein the address translation means is adapted to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network”** as the translator 101 then looks up 306 the mapping between assigned ipv4 address and ipv6 address to retrieve the ipv6 address of host A, and make this 308 the destination address of the packet. For the packets to be routed from the translator 101 to host A, the translator 101 has to modify the source address of the packet, which is the ipv4 address of node C, into ipv6 format. This involves expanding 310 the ipv4 address of

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host C with a prefix that is representative of the translator 101 (**Hovell** Page 6, Lines 16-22).

**“wherein the address translation means is adapted to add network address translating element information to the resolved address”** as when an ipv4 packet arrives at the translator 101 a 96 bit prefix, which is indicative of the translator 101, is added to the source address of the packet (32 bits) to make an ipv6 address (128 bits) (**Hovell** Page 6, Lines 25-27).

Claim 12 is essentially the same as claim 3 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 4, **Hovell** teaches **“the network element according to claim 3, wherein the network address translating element information is an address prefix”** as an IPv4 source address 10.10.10.10 arriving at the translator 101 could be given the prefix 2001:618:1:2:: so that the source IPv4 host has the following address in the IPv6 world 2001:618:1:2::10.10.10.10. An IPv6 packet sent to this address would go to translator 101 because the prefix 2001:628:1:2:: routes to the translator 101 (**Hovell** Page 6, Lines 28-32).

Claim 13 is essentially the same as claim 4 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 5, **Hovell** teaches **“the network element according to claim 3, wherein the address translation means is adapted to select a network address translating element based on information regarding the load on the network address translating element”** as the selecting means is operable to monitor the device characteristics, so that selection of a device is based on current device performance. Monitored device characteristics include at least one of operational status of device, loading on device, and/or aliases available to the device (**Hovell** Page 3, Lines 8-11).

Claim 14 is essentially the same as claim 5 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 6, **Hovell** teaches **“the network element according to claim 1, wherein the first protocol is Internet Protocol version 6 (IPv6), and the second protocol is Internet Protocol version 4 (IPv4)”** as a device so identified thereafter deal with all subsequent communication between hosts in IPv6 and IPv4, and the subsequent communication is therefore independent of the controller operations (**Hovell** Page 7, Lines 26-27).

Claim 15 is essentially the same as claim 6 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.



With respect to claim 7, **Hovell** teaches **“the network element according to claim 1, wherein the name resolving means of the network element is adapted to send a name resolve request to a name resolving element located in the second network”** as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14). Assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates the alias into the address of the target network device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

With respect to claim 8 & 9, **Hovell** teaches **“a system comprising a network element according to claim 5 and at least two network address translating elements, wherein the network address translating elements are adapted to send load information to the network element”** and **“The system according to claim 8, wherein the load information is sent using a Simple Network Management Protocol (SNMP)”** as the controller 401 can derive the loading on a device 403a by issuing simple network management protocol (SNMP) messages to a Management Information Base (MIB) that is maintained on the router (**Hovell** Page 9, Lines 17-19).

Claims 16 & 17 are essentially the same as claim 8 & 9 except they set forth the claimed invention as a method and are rejected for the same reasons as applied hereinabove.

With respect to claim 18, **Hovell** teaches **“the method according to claim 10, wherein the name resolve request processing step comprises the steps of: forwarding a name resolve request from the first network directly to a network name resolving element in the second network; and receiving an address from the name resolving element in the second network”** as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14). Assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates the alias into the address of the target network device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

### ***Conclusion***

5. The prior art made of record and not replied upon is considered pertinent to applicant's disclosure is listed on 892 form.

**Contact Information**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usmaan Saeed whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Usmaan Saeed  
Patent Examiner  
Art Unit: 2166



Leslie Wong  
Primary Examiner

US  
April 28, 2006